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The Work of the Psychiatric Clinic of the Toronto General Hospital

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WHILE those who discussed the question of the Feeble-minded did so in general terms, little or no advance was made in the way of attracting public attention to the importance of the problem. People may be interested in a limp way in generalities, but it is only when disagreeable facts are thrust home with sufficient force that they begin to realize the danger in their midst.

The Psychiatric Clinic at the General Hospital was developed with the hope of affording relief to as many defectives as possible, and also with the idea of accumulating facts with which to carry on a propaganda in regard to desirability of attacking social problems of vital importance to the State. Those who undertook the work were fully alive to the situation and felt that with the Social Service Department to aid it, there would be little difficulty in getting statistics together, which would supply unanswerable replies to those who asserted that a great deal of fuss was being made about nothing. Fortunately the City Health Authorities, the Juvenile Court, and the Board of Education co-operated most enthusiastically with those who developed the Clinic, and they are now in a position to offer facts and figures which show how large a part the defective plays in the development of vice and crime in this city.

From April 8th, 1914, to February 1st, 1918, no less than 3,578 patients were examined, and it is interesting to learn that of this number 1,249 diagnosed as defective came from the Juvenile Court—and this too in a city where, before the Clinic was instituted, it was gravely stated that there were only 250 cases of feeble-mindedness in the schools. Of the 3,578 examined only 322 could be placed in the "probably normal" column. These were in most instances simply victims of bad environment.

An analysis of the 3,578 cases gave the following results:

Morons.....	862
Imbeciles.....	818
Idiots.....	114

Insane.....	497
Epileptic.....	75
Backward.....	385
Cretin.....	3
Deaf, Dumb and Defective.....	7
Apparently normal.....	322

Four hundred and forty-eight cases of immorality were reported, and among these were two hundred and eighteen mothers of illegitimate children. Two hundred and twenty-five were found to be syphilitic although no general routine Wassermann test was made until quite recently. Now every case examined has a routine Wassermann done.

During recent months the number of Morons coming to the Clinic has greatly increased, and when it is remembered that all of these are potential criminals, and practically every one already charged with some crime, it will easily be realized that, if the very foundations of criminality are to be attacked, something must be done to control these high grade imbeciles. No end of writing has been done regarding the care and treatment of the criminal, but the common sense plan is to segregate morons before they have had opportunity to develop criminality. By doing this the tide of crime could not rise to its present height, and the reduction of cost to the State would be enormous. There are plenty of instances even in our community where valuable lives and thousands of dollars would have been saved had the inbecile been locked up early in the day. It is interesting to learn that of the patients coming to the Clinic only 45.33% are Canadians. Such figures as these are most significant, and show that Governmental authorities have been negligent at the ports of entry for immigrants. It may seem a wise policy to entice large number of immigrants to our shores, but surely the mental survey of such people should be made with scrupulous care.

Then the questions of prostitution, illegitimacy, feeble-mindedness and venereal disease have bulked largely in the studies undertaken in the Clinic, and it is clearly demonstrated that they are closely related—so much so in fact that they cannot be discussed intelligently apart. Prostitution is evidently carried on to a great extent by defectives, and, as prostitution is the source of most infections in the cases of gonorrhoea and syphilis, it is evident that to segregate all cases of defective prostitutes will be an effective measure in helping to deal with the question of the increase of venereal diseases. No matter where we look in hospital records, the part the defective plays in the development of unsatisfactory social conditions is evident. During the last year 116 illegitimate births were recorded in the Burnside, and of the mothers no less than 56.2% were defective. Surely such figures carry their lesson to the thoughtful people of the community.

*The Problem of the Feebleminded

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Feeble-mindedness has been largely discussed and written about, and is recognized as one of the most serious of social and economic conditions. Its consequences are far reaching. Indeed, the economic disability, the anti-social propensities, and the rate of propagation of the feebleminded combine to constitute a problem of a magnitude that no civilized country can afford to neglect. The untold sum of misery and unhappiness which this class represents can never be expressed or ever realized. These people, who are scattered throughout the community, increase the cost and reduce the efficiency of our Municipal Governments, Departments of Public Health and Educational systems. It is they who cause the greatest difficulty in the work of education. In the schools our teachers often waste time trying to teach feebleminded children. This will be the case until the community knows the facts. Mental defectives cannot be taught to bring them up to a normal standard. The public schools should rid themselves of such children, (1) because they retard the progress of other children by taking up valuable time; (2) because they are not able to take advantage of instruction given.

Social problems such as poverty, immorality, vice, and crime are deeply rooted and chronic. Modern society and business methods have been unsuccessful in solving them because feeble-mindedness has often been the underlying factor. As far as crime is concerned it is well established that 25% of all adult chronic offenders against the law are mentally deficient, and fully 40% of our juvenile delinquents belong to the same class. At the Psychiatric Clinic in Toronto 1,249 cases referred from the Juvenile Court were found to be feebleminded.

The evil of prostitution is widely recognized, and investigation shows that about 60% of all prostitutes are feebleminded. That every feeble-minded woman is a potential prostitute will not be disputed by many. The majority of immoral and diseased girls found in institutions are feebleminded, incapable of reform and self-support, and not desirable or safe members of a community.

The feebleminded can be grouped into three classes:

1. *Idiots*.—These individuals are lowest in the mental state. They are usually dirty in their habits, and can neither walk nor talk.

(*Paper read at the Annual Meeting of the Canadian National Association of Trained Nurses held in Montreal, June 11th, 1917.

2. *Imbeciles*.—They range in mental age from 3 to 7 years. They can do simple manual work under supervision, and can generally guard themselves against ordinary physical dangers.

3. *Morons*.—In this group are found the highest grades of the mentally deficient. In judgment and self-control they are lacking. Young girls of this class are almost certain to become sexual offenders, and to spread venereal disease, or to give birth to children as degenerate as themselves. Their numerous progeny are likely to become public charges as diseased or neglected children, imbeciles, or epileptics.

In April 1914 a Psychiatric Clinic was established at the Toronto General Hospital in conjunction with the Social Service Department, to investigate the problem of feeble-mindedness. It was under the direct supervision of Dr. C. K. Clarke, and he had associated with him Dr. C. M. Hincks and Dr. O. C. J. Withrow. This Clinic has been held every Thursday afternoon since its inception. Organizations such as the Juvenile Court, the Department of Public Health, and the Churches send cases for examination. Up to date 2,103 cases have been examined, and of these 1,074 have been children under sixteen years of age. Each case has been carefully studied in regard to environment, family, personal, social, economic, and school history.

Let me cite to you a few of our cases:

Case A.—Reports came (1) from the Department of Public Health, that Mrs. A. was never seen on the streets, and she would not allow a nurse in the house; (2) from the truant officer, that the four children were away from school on an average of three days a week, (3) from the Children's Aid Society that these children were neglected. After four visits to the home an admittance was finally gained. It was an unfinished shack of four rooms, two of which were furnished. The furniture consisted of a table, two chairs, a stove, one cot, and two mattresses on the floor. The rooms were dirty and littered with clothes and papers. Mrs. A. was sitting on a chair, partly dressed, and talking to herself. The children were on the mattresses, and in a most neglected condition. After spending one hour in the home the following history was obtained. The mother—evidently insane—had not been on the street for a year, as she was afraid her neighbours would poison her. This was her reason for not sending her children to school more regularly. The father was of unstable type, and unemployed the greater part of the year. The children, ranging in age from 14 to 6 years, were ill-nourished and uncared for. Although the 14-year old girl had been attending school for eight years, she was still in the 1st book. The 12-year old boy had appeared in Juvenile Court on two occasions, and could neither read nor write. The 9-year old child was in the 1st book, and the 6-year old in the kindergarten. The whole situation was a very sad one. After

many attempts to have this woman examined mentally, it was only by taking the case into Juvenile Court that this was accomplished. The mother was sent to the Hospital for the Insane, while the children were placed for the time being under the care of the Children's Aid Society, but owing to their mental condition they could not be made wards. An effort is now being put forth to locate an aunt who will look after these unfortunate children, but how much better if they could be placed in a suitable institution, rather than to be at large to fall a prey to some misfortune.

Case B.—Mrs. D. is an Irish woman of 58 years, who has had 17 children, 12 of whom had the misfortune to live. The home, if such it can be called, consists of four rooms in a narrow street of the down-town section. The windows are now boarded up. The interior was untidy and dirty, and the furniture scant. It is a common occurrence for this family to sit on the floor for their meals owing to lack of table and chairs. The mother is distinctly feeble-minded, and is unable to read or write. The father has never earned more than \$10 per week. Of the children, one daughter has given birth to four illegitimate children, five have appeared in the Juvenile Court for theft, four are habitual truants, and the majority have been diagnosed as feeble-minded. An effort is now being made to break up this family, but we expect to receive the old reply, "It is too bad, but we can't do anything because they are feeble-minded".

A great difficulty now presenting itself is the number of children under six years of age, who require institutional care. No institution in Ontario will care for such cases. To illustrate how dangerous some of these children are, the following case may be given as an example. It is that of a lad five years of age. He was one of two children following an illegal marriage. The father, an alcoholic, was arrested for bigamy. The mother, of weak type, has since married an alcoholic. Although but five years of age the child in question delights in hurting his baby step-sister by pricking her with pins and burning her with a hot poker. He has killed eight small rabbits, choked a cat by tying a string around its neck, and on two occasions has set fire to the curtains in the house. Because he has not lived six years he must remain at home and endanger other lives.

There is every probability that with war stripping the country of the flower of our nation, and the feeble-minded class producing its own kind, we shall have a much higher percentage of mental defectives, unless you who are here to-day do your part in educating the public regarding the need of segregating the feeble-minded in farm colonies.

*Mentally Deficient Children

CLARENCE M. HINCKS.

PERHAPS there is no problem in the whole realm of State Medicine that has been studied by more people, and that has formed the subject matter of so many lectures and treatises as has the topic—Mentally Deficient Children. And I might go further and state that there is probably no subject about which there are more misconceptions. The reason for this lies partly in the fact that the investigators have been men and women trained in widely different schools. Psychologists have perhaps monopolized the field, and their conception of mental deficiency is naturally saturated with psychological considerations. A few psychiatrists have interested themselves in the problem, and their notions of the condition give prominence to anatomical and pathological factors as well as psychological. Then there have been a great many investigators who knew little psychology and less medicine, who have looked at the condition purely in its social aspects.

Considerations of this nature give us not only a partial understanding of the reason for the somewhat chaotic state of present day conceptions, or rather misconceptions of the subject of mentally deficient children, but point the way as well to a rational method of clearing away the mental fog surrounding the problem. It is evident that there must be a getting together of psychologists, psychiatrists, pathologists, and social workers, in an endeavour to co-ordinate their observations and views. I am proud to say that such a union exists in Toronto, and we hope the time will come when we will be able to show that this method of treating the subject sheds light where darkness has hitherto prevailed.

Since it is impossible at this early date to give anything approximating the concensus of opinion of the Toronto group referred to concerning various aspects of my subject, I will content myself by presenting a few personal views.

In the first place I would like to say something about the problem of defining mental deficiency. Many definitions have appeared in the last few years. In fact they are about as numerous as the investigators themselves. All definitions of which I have knowledge may be classed as either psychological, social, pathological (*i.e.*, in terms of brain defect), or a mixture of these. A word concerning the first-psychological definitions. These have been popular since the introduction of the Binet-

*Paper read at the November meeting of the Section of State Medicine, Academy of Medicine, Toronto.

Simon Scale for the measurement of intelligence, and they attempt as a rule to define mental deficiency in terms of mental age, according to this scale. Binet suggested, and he has been followed by Goddard and others, that 12 year mentality was the dividing line between mental deficiency and normality, and he thus proposed to diagnose children as mentally deficient who could never be expected to pass the twelve year standard. I make reference to this because it is largely on such a basis that many of the diagnoses of mental deficiency have been made in recent years in the United States. This procedure seems to me to be unsound because the Binet tests are not true mental tests in the broad sense of the term—but only intellectual tests, and even in the intellectual realm they give us merely a rough estimate of the intelligence of a school child. I say rough estimate advisedly because I have frequently encountered children who performed the Binet tests for their age admirably, but who were nevertheless gravely lacking in practical and moral judgment. But let us suppose that by means of the tests we could measure intellectual endowment, are we justified in assuming that we are measuring mental development? Not at all. The intellectual life of an individual is, if anything, the lesser half of his mental life. It is a matter of common observation, for example, that success in life is dependent more on emotional and volitional factors than on pure intellectual ability. Ambition, enthusiasm, initiative, energy, industry—these are greater determinants for successful living than mere intellectuality. Now, the Binet-Simon tests and modifications thereof do not pretend to test the latter at all adequately, and therefore they are not true mental tests. That being the case, we cannot estimate mental age with them, but only intellectual age, which is quite a different thing. The tests, then, may tell us not that a child is mentally deficient, but that he is intellectually deficient. You may ask, however, such a question as this—is it not true that if a child is intellectually deficient he is mentally deficient as well? My own answer is in the negative. I find, for instance, children who have an intellectual age of 13, but who are so defective in emotional and volitional development that they are unsafe members of society. I also know men whose intellectual age is that of ten or less, who, because of emotional and volitional strength, are useful members of society.

It therefore seems impossible to define mental deficiency in terms of intellectuality. It is likewise impossible to define it in terms of brain and nerve defect because of our ignorance of these matters. The only road left open is a definition in which social efficiency is taken as the standard. I, for one, am satisfied to define the condition as one in which the individuals affected can never be expected to earn an independent living, or conduct their affairs with ordinary prudence—such a condition being apparent from birth, or from an early age, and due not to physical

ailments, but to some at present unknown brain defect. In other words, when I make a diagnosis of mental deficiency, I state my conviction that the individual concerned is an unreliable member of society, and needs strict supervision, preferably in an institution or farm colony.

I wou'd now like to say a few words about classification. In the past defectives have been classified according to intellectual attainment, according to moral attributes, according to industrial and social efficiency, according to aetiology, according to anatomical peculiarities, and according to a mixture of the before-mentioned. It was, for example, because of intellectual, social, and industrial considerations that the well-known grouping into idiots, imbeciles, and morons was made. As far as classification is concerned I believe that the criterion should be psychological, giving, however, consideration to aetiological factors such as syphilis, defective thyroid secretion, etc., when they are discovered. If ever we want to make a fine delineation between defective types to facilitate, for instance, arrangement for suitable pedagogical treatment, then it must be largely on a psychological basis that such a delineation be made. I say this in spite of the fact that I define mental deficiency in social terms. Moreover, without some psychological classification wherein the emotional life of an individual is taken into account, I can find no place for a host of cases that demonstrate little intellectual defect, but pronounced emotional disturbance. The type of cases that I refer to cannot be classed as moral imbeciles because the latter include only that small group wherein moral perversion or lack of emotional balance, rather than defect, is the characteristic. To satisfy temporarily the needs of the situation we could enalrge the moron group to include not only those with intellectual defect, but to include also those with emotional and volitional defect.

I am quite well aware that in this connection I am not introducing anything new. Men who have not allowed the Binet Simon tests to divert their attention from emotional and volitional factors—such men as Kraepelin, Sherlock, Barr, Tredgold, and others—have recognized the existence of mental deficiency wherein factors other than intellectual played the prominent rôle. I find, however, in the writings of these men a lack of clearness in the delineation of the emotional and volitional types of deficiency to which I have referred. We must give these men credit, however, for drawing our attention to the need of taking the emotional life into account in connection with mental deficiency, even if they have left untouched the difficult task of dealing with emotional and volitional development in some such way that Binet accomplished with considerable success in the intellectual realm.

I have dwelt at length on the subject of classification because I am convinced that by adhering to the old grouping into idiots, imbeciles, and

morons, and by attaching to these terms their old significance we are overlooking many cases of deficiency—many of the so-called moral cases that constitute by far a greater menace to society than any other group. We are apt to overlook, for instance, many defective prostitutes whose mental deficiency is marked by weak will, or shallow emotional life, or hypersuggestibility, or a combination of these and other factors, but who demonstrate facility in accomplishing the Binet tests.

Diagnosis of mental deficiency calls for comment. One cannot over-emphasize the fact that the diagnoses of those cases presenting defective judgment not revealed by the Binet-Simon tests, and those wherein the deficiency is largely in the emotional realm, can only be accomplished by specially trained examiners. And in my opinion the training necessary includes the observation of many cases over a number of years. In other words, a wide psychiatric experience is the essential equipment of a competent diagnostician of mental deficiency, and the examiner must be a psychiatrist trained in medicine and psychology. If diagnoses are intrusted to others, history will repeat itself—unfortunate mistakes will continue to be made as in the past. This is not the place to draw your attention to the host of data in connection with family history, personal history, physical and mental examination, upon which a diagnosis of mental deficiency is based.

Now as to treatment. My definition of mental deficiency makes it clear that the majority of cases should be placed in farm colonies. The erection and equipment of suitable institutions to accommodate all our defectives in Canada would involve the expenditure of many millions, and the cost would fall most heavily on provincial legislatures. Is the money forthcoming? No, not at present. I predict that it will come, however, if the electorate is made acquainted with the facts of the situation—facts such as we have collected at the Psychiatric Clinic of the Toronto General Hospital.

Psychology and Public Health

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HYGIENISTS are wont to impress upon us that the ideal for the good citizen is a healthy mind in a healthy body—*mens sana in corpore sano*. And that ideal may be all the harder to attain the more segregated and congested human lives become in the increasingly complex conditions of modern life. For just as there are diseases of occupation, so also are there curious modifications made in the lives of persons by the nature of their work. If people who write articles on public health were compelled to do steadily for months the same task, e.g., packing tea into quarter and half-pound packages, putting a piece of wire always of the same length as the preceding piece into the same machine hours at a stretch, or carrying on a tray so many chocolates of a specific variety for another to pack in the same size of cardboard box, and do this day after day with interruptions for sleeping and eating, it would be very interesting indeed to observe "the emotional reaction" when they again took up the pen. When the main and perhaps the only incentive to labour is the necessity for wages, "to keep the wolf from the door", it is perhaps scarcely debateable that an employer is not getting the most out of his "hands". And it may be that a study of the "hands" would be almost as profitable as a study of the hands' products: and that may be humbly suggested without in any way pretending to "show capital how to run a factory". For however refined and complicated our machinery the fact remains that the greater part of the world's work will be done by and for human beings, and public hygiene is contributing no small share to the industrial efficiency of the world when it everywhere inculcates *mens sana in corpore sano*.

Now there are some elementary but fundamental demands in the life of industry, which centre around the following three things: the best man for the job, the best work on the job, and the best disposal of the job's product; in brief, hands, products, and exchange, or production and distribution, and these are closely inter-related and inter-dependent. In recent years there has arisen the demand for the modicum of information that Psychology may be able to render regarding these related things, and "a great and effectual door has been opened" to those whose main interest in life is the study of persons. In the first case, the hands, there is the problem of vocation—vocational guidance and vocational training. Here the task consists largely in a study of the qualities requisite for efficient service in the numerous avenues of social life, and then a study of the characteristics and capacities of those who early

in life look forward to one or other of these avenues. Is the "demand" in one counterbalanced by the "supply" in the other? Or is the supply such that an applicant is rendered good advice, and the community valuable service, when urged to abandon one anticipated calling and select another? Since an exceedingly large proportion of our youth pass from the public schools into business, without the further "expansion" of higher education, the need for vocational guidance becomes all the more imperative. Then in the second case there is the question of the job's best work, and so the conditions under which human beings labour, and those under which they can produce the most and best. Here one has to do with the emotional factors connected with the individual's work, the incentive to it, the skill involved in it, and the pleasure found in "a good thing". Finally there comes the disposal of the good thing, its advertisement, display, its foothold in the market, and the cultivation of a demand for that which will supply a human need. In all these things Psychology has not by any means arrived at the place where it has nothing more to learn, but the use of Canadian Standard efficiency tests in the excellent work of the Y.M.C.A., the tentative and preliminary standards laid down by railway companies, the agencies that have already been set in operation for vocational guidance and vocational training, the psychological tests proposed in the United States for draftees in camp, with an eye toward their classification; all these and many more signs indicate that for any kind of industrial service vastly more is necessary than height and weight.

But not only does industry demand labour, it demands skilled labour, and both are at their best only on a high standard of health. Therefore, industry is best serving itself when it urges that the producers of labour, the home, the school, and community should be maintained at the highest efficiency. Yet from whatever mysterious causes the vortex of industrial life in highly organized and "progressive" peoples shows an astonishing large number of misfits, or weaklings, who seem utterly unable either to stem the tide of competition or to avoid it. And here Psychology finds an ever-expanding task wherein with energy and patience and time something might be accomplished for the service of the State. As in the first aspect, that of attaining efficiency in industry, the object of study is the individual and the conditions under which he works, his ability to acquire skill, his acumen in understanding and meeting a situation, his memory for instruction, the emotion experienced in performing a task well or ill, and so on; so also in the second aspect the task is to try and understand the weakling, or defective, in brief the inefficient and the causes of his inefficiency. Here of course the task becomes exceedingly complicated and difficult, for, assuming that nature is always trying to make a good product, where has the machinery broken down? What have been the barriers in the way of making man "perfect and upright".

Here crop up a host of things for which it may be very difficult to obtain a therapeutic agent, *e.g.*, all the wide series of defects grouped under the name "nervous" such as hysteria, irritability, morbidity, despondency, impulsiveness, etc.; defective memory, weakness in apperceptive power or acuity, moral degeneracy so often linked with alcoholism, and the numerous forms of these defects which not only upset the individual's chances in the industrial world, but make him more or less—and oftener more than less—a burden or even a menace in the community. It is in the prolonged study of these cases, so typical and frequent in the Psychiatric Clinic, that the Psychological Laboratory can render some service to the State. In the thousands of cases passing through the diagnosis and recommendation of the clinic there is an enormous field for close and protracted study, when proper facilities are available. First there must be obtained as skilfully and fully as possible the family history of the individual concerned, the habits, dispositions, capabilities for learning and labour, neuropathic tendencies, etc., of the father and mother and their relatives. Then comes a study of the home, its tidiness, cleanliness, furnishings, or their absence—the things that a good and trained home investigator can see in five minutes; followed by a study of the locality, and the "type" of people living there. This is followed by a study of the individual in question; his history since birth, his babyhood, childhood's diseases and their results; his conduct at home and at school, attitude toward lessons, teachers, and playmates of both sexes; his intellectual attainment compared with others of his own natural age; his emotional life in work and play, sleep, dreams, hallucinations and illusions, if any, his volitional life, strong willed, weak willed, vacillating, "everything by turns and nothing long", and with it his moral and religious training. To these must be added defects of sense organs, muscular capacity, conditions of circulatory system, power of co-ordination in movement, etc. In short, the attempt should be to map out a chart of the individual studied to determine, if at all possible, what factors have been operative in producing the result. Where an individual has left school and entered the highway of industry, the industrial history can be fairly well followed up. In this way one may be able to determine in some degree the rôle played by heredity, social environment, education, civil and religious, nutrition, cleanliness, etc., and formulate the grounds on which an individual may be declared to be capable of "making good", or of becoming a subject of institutional care and the ward of the State. In the performance of this task there is a splendid opportunity for co-operation by different agencies which can supplement one another. Juvenile Courts, Truant Officers, Psychiatric Clinic, Specialists in various branches of Medicine, the Pathological Laboratory, the Psychological Laboratory, the Social Service Department may all unite in a common task in the service of Public Hygiene and industrial efficiency.

Mentally Deficient Recruits for Army Service

BY CAPT. O. C. J. WITHROW, C.A.M.C.

THE problem of the unfit is of more concern in army circles than in the civilian community. War is a hard taskmaster, and is insatiable in its demands. It cannot brook physical disability; it must have the best. Moral disability is no bar to entrance into the ranks; all war asks is a sufficient morale in its gregarious fighting humanity. The question of mental disability is both important and difficult of solution. It presents grave difficulties because of the lack of time to institute a proper examination of mental capacity as the recruits gather in hundreds for categorization. The idiot and the low grade imbecile present no real problem. The brand they wear is deep enough and plain enough for a decision at a causal glance; but the high grade imbecile and the moron, with the victim of a psychosis are often passed through as physically fit when mentally they are a menace to proper military training. It is not surprising that this should be, for they have sufficient intelligence to answer all necessary questions, and the elucidation of their malady would require a different line of tactics by the Medical Officer. In the early days of the war, men were so eager for acceptance that they hid their disabilities, if possible. Now, recruits are so eager to recount their numerous maladies, that it is surprising that one small human body can carry such a conglomeration of complaints. This refers more especially to the physical. The mental problem is the same then as now. The men themselves do not know their disability, and even their friends are loath to admit the possibility of any such blight as mental deficiency or insanity. Thus the Medical Officer, having little to guide him, oftentimes stumbles and falls upon a very rocky road.

For there is no shadow of a doubt that mental defectives—and I find I am limited to this class of mental cases—give great concern to a Medical Officer of a unit so soon as they have donned their uniform. Every fellow may look alike in khaki, but every man doesn't act like his comrade, any more than do the units in civilian life. Deficient mentality shows itself early or late. The greater the deficiency, the sooner the discovery. The sergeant reports that Pte. Bill Smith is too stupid to learn any drill. The cook house sends word that Pte. Tom Jones is no good around the pots and pans. The Sanitary Squad won't have the last man detailed to them; all he does is to stare at the landscape. The Medical Officer greets these recruits at his morning sick parade, and has very little difficulty in pronouncing a diagnosis—likewise a prognosis. The difficulty arises

when an attempt is made to have such discharged from the army. This takes trouble and it costs money. These are the simple cases—what complexities are involved with the others!

One mental defective in a platoon may, and usually does, cause more anxious thought by the officer and N.C.O.'s than all the rest of the men, while physically he is so fit that the mess hour is hardly sufficient to satisfy the call of an abnormally healthy appetite. This class of men is not understood, and numerous crimes stand to their discredit, while punishment has no efficacy whatever as a corrective. If these men were properly understood, they might prove fairly useful servants at certain duties, but the gain therefrom is offset by the loss of such valuable time and money that it is better to shut the entrance gates against them, or if perchance an odd one slips through discerning medical boards to have his name deleted from the roll as speedily as his symptoms become manifest.

I believe it would be good policy to have a Board of two competent Psychiatrists at the centre of every Military district, to whom suspected cases of mental deficiency and psychoses must be referred. It takes time to make a diagnosis and the importance of a correct diagnosis is threefold.

1. It is not fair to the recruit to stigmatize him as a mental case if he is not such a one.

2. It is not fair to the fighting forces at this time to keep out of service one possible addition to the ranks, because he may inadvertently have been labelled mentally deficient.

3. It is not fair to the Government, nor is it good business to carry one single mental defective on the rolls of the forces one moment longer than is necessary for a proper diagnosis.

It appears to me, that it would be well worth while to allow sufficient time for such examination as outlined above, that the parties concerned might be fairly dealt with.

Many loyal and devoted persons have expressed their convictions that it seems a great pity to send all the physically fit to fight our battles with the prospect of death or disfigurement, while those of lesser physical attainments are left at home. It seems a greater hardship that we leave behind the mentally defective, while those of brighter intellect march off to do exploits. But what will you? War is war, and it takes the keenest and the bravest to stand the rigors of a campaign. And one deficient intelligence may cause a calyclasm of disaster, in many an hour of expected triumph.

Up in this northern region, I have been confronted with numbers of men who can neither read nor write. What should we do about these? In the first place, the admission of illiteracy raises the red flag. Is there mental deficiency here, or have other causes contributed to this lack of the

commonest knowledge of the schools? Every such applicant should be most carefully considered and specially tested. A percentage will be found mentally deficient; the balance, intelligent individuals with adequate reason for their illiteracy. The latter should be accepted since it is a reasonable duty for the Expeditionary Force to institute a course of lessons in the three R's, thus, those whom fate have deprived of the simplest education may gain an entry into the educational life, while training physically for heroic service for the empire.

Hamilton Branch of the Provincial Association for the Care of the Feeble Minded

T. H. WILLS

Hon. Secretary.

THE matters referred to in the following compilation are so commonplace and so devoid of interest to the general reader, that nothing short of the stern edict of the editor, and the assurance that the methods adopted, might (with certain local variation) prove useful and a source of encouragement to social workers in other cities who may be induced to assume a similar duty, would have induced the compiler to place them on record.

In the autumn of 1916, the Executive of the Provincial Association for the Care of the Feeble-Minded recognized the desirability of having branch associations organized in all the cities throughout the Province; and at their request the Secretary (Dr. C. M. Hincks), wrote the respective Mayors of 14 cities, requesting them to convene a public meeting to consider the suggestion.

At the Annual Meeting of the Association held in February 1917, he reported that in only one instance (viz., Fort William) had his communication been even acknowledged; and even in that case the authorities had declined to entertain the suggestion.

With a view to remedying this neglect, in one district at least the writer suggested to Dr. Hincks, in April 1917, that a second letter should be despatched to this city; guaranteeing that at least the courtesy of a reply would be vouchsafed.

Dr. Hincks having intimated that the aforesaid suggestion had been carried into effect, a personal call was made upon the mayor forthwith to "dot the i's and cross the t's", of the missive in question.

The visit resulted in an invitation to wait upon the Board of Control at their next meeting to explain the aims and objects of the Provincial Association, and the necessity for local support.

The reception proved to be a favourable one, and resulted in the matter being sent in to the Legislative Committee, with a view to the necessary action being taken.

A further interview with the Legislative Committee led to the adoption of the suggestion that a meeting be convened in the City Hall, by personal invitation from the Mayor, on behalf of the Council: and that Dr. Helen MacMurchy and Dr. C. M. Hincks, be requested to attend and address the meeting on the subject in question; the individual who

had taken up the matter on behalf of the Provincial Executive, undertaking to personally see that the invitations were widely and judiciously distributed.

Some 300 invitations were sent out, to parliamentary representatives, members of the City Council, Educational bodies, inspectors and teachers; the clergy of all denominations; members of the medical profession; the Executive of business and fraternal organizations, and of the Trades and Labour Council; recognized social-welfare workers of every grade, and others likely to be interested; with the result that considerably more than 100 were present at what proved to be the inaugural meeting of the Hamilton branch of the Provincial Association for the Care of the Feeble-Minded. Mayor Booker, who occupied the Chair, struck the key-note of sympathy in his introductory remarks.

Dr. Helen MacMurchy spoke in her usual forcible and convincing manner of the necessity for providing institutional care and special educational and annual training for those mentally deficient; and pointed out the economic advantages accruing to the community generally where such provision was made.

Dr. Hincks gave an interesting and illuminating account of the work carried on at the Psychiatric Clinic of the Toronto General Hospital during the past three years. He adduced statistics from the investigations made at that Clinic, proving that mental deficiency was an important factor in juvenile delinquency; and showed how two to three feeble-minded children of sexual abnormality had in more than one of their Toronto Schools been the source of moral contagion to an alarming extent. He felt justified in assuming that a similar investigation in Hamilton, would bring out facts sufficiently alarming to rouse the public conscience, with a resultant demand for remedial measures.

In conclusion, he expressed the hope that Hamilton would not be too proud to follow in the footsteps of Toronto, and form a local branch of the Provincial Association.

John Allan, M.L.A., considered it a question that should be dealt with by the Legislature at the earliest opportunity; and advocated the formation of a local association.

Mrs. Robert Evans and Mrs. P. D. Crerar referred to their Association with rescue work for more than two decades; and of how increasingly difficult the problem became where feeble-minded women and girls were concerned.

Rev. W. H. Sedgewick expressed the opinion that they had been sleeping upon the edge of a crater of a volcano. Every minister of every denomination would be glad to be afforded the opportunity of doing everything within his power to cope with the menace that had been thus brought to their notice.

Sheriff Middleton, Dr. R. Y. Parry and Dr. J. Roberts, M.H.O., also spoke briefly as to the necessity for dealing with the matter promptly and effectively.

T. H. Wills considered the question of the feeble-minded, a moral cancer in the body politic; and as such, drastic treatment was not only necessary but imperative. He moved that a Committee be appointed to organize a local branch of the Provincial Association. The motion having been seconded by Mrs. Robert Evans, was unanimously adopted.

The mover thereupon proceeded to nominate what he designated a "hand-picked" Committee; "hand-picked", inasmuch it included an active worker from practically every public body or organization of any standing in the City, and was thus comprised of some 50 representative citizens, all of whom had promised not only moral support but active co-operation.

At a meeting of this Committee held a few days later, the following officers were appointed: President, Judge Gauld; 1st Vice-President, Mrs. Robert Evans; 2nd Vice-President, Sheriff Middleton; 3rd Vice-President, Mrs. P. D. Crerar; 4th Vice-President, Dr. G. S. Glassco; 5th Vice-President, W. H. Lovering; 6th Vice-President, Mrs. N. Urquhart; Hon. Treasurer, Miss Hilda Savage; Hon. Secretary, T. H. Wills.

The constitution and bye-laws of the Provincial Association were adopted, with slight emendations to meet local requirements; and the following committees appointed: Finance, Publicity, Educational, Medical, Social Service.

The work of the local Association has been in the main devoted to educating public opinion on this all-important question; and an unobtrusive but effective press campaign has been steadily conducted with the object of keeping its various phases before the Community.

A deputation waited upon the Board of Education to enlist their active co-operation in the matter of providing special classes with specially qualified teachers for such children as were considered mentally deficient.

A sub-committee was appointed by the Board to deal with this matter from time to time as necessity arose, with very satisfactory results.

The following measures may, in addition, fairly be claimed as resulting directly or indirectly from the formation of this local branch.

A series of fortnightly addresses on Community Welfare, including addresses from Dr. C. M. Hincks on "The Feeble-Minded Problem", Dr. C. K. Clarke on "The Venereal Problem"; Commissioner Boyd on "Juvenile Courts and Juvenile Delinquency".

The formation of an "Advisory Committee on Venereal Diseases".

The establishment of a Psychiatric Clinic, with a subsidy from the City Council.

A census (taken by the principals) of the feeble-minded children in the City Public Schools.

A similar census in the public schools of the County of Wentworth.

The establishment of an additional class for mentally deficient children at the Adelaide Hoodless School.

A healthy public opinion strongly in favour of the establishment of a Juvenile Court has been created; and in the near future this too may become *un fait accompli*.

At the request of the local Association the Hon. Mr. Justice Hodgins consented to hold a sitting of the Commission in this city and heard evidence from competent authorities on the Venereal problem.

Evidence on the feeble-minded problem has also been prepared, and is now in course of preparation, to be given at subsequent sittings.

In conclusion, I venture to express the opinion that although Hamilton has, as yet done nothing of which she may be particularly proud, she need no longer blush with shame when the words "feeble-minded" are mentioned in her presence.

The National Committee for Mental Hygiene

Account of the Tenth Annual Meeting of the National Committee for Mental Hygiene of the United States held in New York, February 6th, 1918. Interesting information is presented concerning psychiatric work in the United States Army—work that has been promoted by the National Committee.—EDITOR.

NEW York, February 6th. At the Tenth Annual Meeting of the National Committee for Mental Hygiene, held at its office in this city this afternoon, Dr. Lewellys F. Barker, the President, said, "I believe that the work of the Division of Psychiatry, Neurology and Psychology in the Medical Department of the Army will result in immensely increased efficiency for the military forces by weeding out men who would inevitably go to pieces under the strain of war. Incidentally, enormous sums of money will be saved to the government and people. That shell shock cases and war neuroses will be greatly reduced in number there can be no doubt. Despite the preliminary weeding, however, many shell shock cases will still occur. It will be desirable to study not only those persons, but also men who, similarly exposed, do not become victims of shell shock. There can be no doubt that the science and art of mental hygiene will receive a great impetus through studies carried on during this war."

Dr. Frankwood E. Williams, Associate Medical Director, reported the establishment of a Division of Psychiatry and Neurology in the Medical Department of the United States Army and of the work of the psychiatrists and neurologists in the American camps. "The cantonments have better facilities for the care and treatment of soldiers suffering from nervous and mental disease than any city of 40,000 in the country," he said.

Some three hundred psychiatrists and neurologists have accepted commissions in the Medical Reserve Corps and have been detailed to the various camps. Each camp has its quota. Systematic examinations of the recruits are being made in order to exclude those who are unfit for military service because of nervous and mental conditions. This represents the first attempt of a Government to recruit an army nervously and mentally fit, as well as physically fit. In setting this standard the Surgeon General has been guided by the experience of the European armies, in recruiting which mental and nervous fitness was not considered. Thousands of soldiers suffering from shell shock who have become a burden upon the fighting forces has been the result.

Up to the present time approximately 8,000 men have been recommended for discharge by the psychiatrists. The discharge of officers

suffering from incipient nervous and mental disease is of the greatest importance.

Each cantonment has a modern fully equipped psychopathic hospital. Careful plans have been made for the prevention, when possible, of shell shock in the Expeditionary Force, and for prompt and adequate treatment of those who succumb to the condition. Plans are also made for the continued treatment of the soldiers returned to this country. Major Thomas W. Salmon, Medical Director of the National Committee for Mental Hygiene, is now in France in charge of the work in the Expeditionary Force. Major Pearce Bailey, formerly Chairman of the War Work Committee of the National Committee for Mental Hygiene, is Chief of the Division of Psychiatry and Neurology in the Surgeon General's Office. There is still a further need of 250 psychiatrists and neurologists for the service. For the preparation of physicians for this work special courses in military neuro-psychiatry have been established at the following institutions: Boston State Psychopathic Hospital, Boston, Mass.; State Psychopathic Hospital, Ann Arbor, Michigan; New York Neurological Institute, New York City; Phipps Psychiatric Clinic, Baltimore, Maryland; Philadelphia General Hospital, Philadelphia, Pa.; and New York State Psychiatric Institute, New York City.

Dr. Williams reported that in addition to the war work, the Committee had finished surveys in the States of Tennessee, Georgia, Indiana, Kentucky, Colorado, Connecticut, Nassau County (New York), Cook County (Illinois), and New York City. A survey of the feeble-minded is now in progress in Maine and a similar survey will soon be undertaken in Mississippi. A survey of the insane will shortly begin in North Carolina.

During the year the work of the Committee in the study of the psychopathology of crime has been largely extended. As the result of this, much light has been thrown upon the problem of crime. The reports from the clinics at the New York City Police Headquarters, Juvenile Court, and Sing Sing show that the recidivists—the repeatedly returning prisoner—form the most important group of prisoners and that the percentage of nervous and mental disorder and defect in this group is much larger than in any other group.

A bureau of uniform statistics has been established during the year. The first volume of the quarterly magazine, *Mental Hygiene*, has been issued.

Otto T. Bannard, Treasurer of the National Committee, announced that gifts amounting to more than \$30,000 for general expenses had been contributed during the past year and that gifts and appropriations for special purposes amounting to more than \$100,000 had been received, including gifts of \$60,000 for special war work with reference to nervous

and mental disorders among the soldiers at home and in the Expeditionary Forces. In summarizing the finances of the National Committee at the beginning of its tenth year of work, Mr. Bannard announced that over \$200,000 had been contributed since 1911 toward general expenses. He said that nearly \$200,000 had been appropriated to the National Committee by the Rockefeller Foundation for special purposes, such as surveys of the care of the insane and feeble-minded, studies in the psychopathology of crime, and war work. A pledge for \$100,000 toward an endowment fund has also been secured.

*The Red Cross and the Anti-Vivisectionists

An appeal to the families and friends of our heroic troops and to the common sense of the American people.

W. W. KEEN

Emeritus Professor of Surgery, Jefferson Medical College and Major in the Medical Reserve Corps, U.S. Army.

FIRST of all let me make two facts clear.

1. This paper has been written entirely on my own responsibility and not at the suggestion directly or indirectly of the Red Cross. I have been moved to write it solely in the interest of our brave soldiers, and especially because their sufferings and lives are involved in the suit against the Red Cross by the antivivisectionists to prevent the use of \$100,000 of the Red Cross funds in such beneficent life-saving researches.

2. The Red Cross as an organization is neither an opponent, nor an advocate, nor a defender, of vivisection. It states officially that the *supreme* aim of the Red Cross is to *relieve human suffering* [and it might well have added "and to save thousands of human lives"].

The War Council was advised from the ablest sources available that an immediate appropriation for medical research would contribute to that end. The War Council could not disregard such advice.

They then refer to the many unsolved medical and surgical problems that have arisen from wholly new conditions and methods of warfare. Letters from a number of my own surgical friends in France emphasize and the medical journals teem with papers on these new problems. They relate to the treatment of the horribly infected wounds—and practically *all* wounds are of this kind—never met with in civil surgery; to the treatment of "trench fever"—a peculiar form of fever never before seen; of "trench heart"; of "trench foot" often followed by lockjaw; of "trench nephritis" (inflammation of the kidneys); gas gangrene; tetanus; shell shock; poisonous gases; fearful compound fractures, especially of the thigh, etc. Every man enabled to return to active duty as a result of solving these problems helps to win the war. Every man who dies, or is permanently disabled because of our ignorance, hinders our winning the war.

It must be remembered that our surgeons, physicians and physiologists over there are the very flower of the American medical profession. These fine men under the supervision of the Medical Staff of the United States Army, superintend all the work. Nothing is done that has not the direct approval of Brigadier General A. E. Bradley, U.S. Army.

*Reprinted from *Science*, 22nd February, 1918.

Experiments on animals form a necessary but a minor feature of the researches.

The animals used are principally guinea-pigs, rabbits and white rats. If operations causing pain to animals are performed, anesthesia is used.

This certainly does not suggest "cruelty" or "torture."

I appeal to the common sense of the American people and especially to the families and friends of our brave soldier boys: Which do you prefer (i) that our soldiers shall be protected from attacks of these new (as well as of the familiar) diseases, their sufferings lessened or even prevented, and their lives saved, or (ii) will you insist that not a single guinea-pig, rabbit or rat shall suffer the slightest pain or lose its life, in researches to lessen the suffering and save the lives of our soldiers?

Remember, if you choose the second you deliberately condemn your son, brother, or husband to sufferings far beyond any suffering of these animals. In many cases, as I shall show, you will condemn your dear one to death, and in some cases a horribly painful death.

In the "Bill of Complaint" of the Antivivisectionists, seven grounds of opposition to vivisection are mentioned. The sixth reads as follows:

That although it [vivisection] has been practised for many years, *nothing has been discovered by means of it that is at all beneficial to the human race.*

This is the crux of the whole matter. If this were true I would vigorously oppose vivisection myself.

I entered upon my medical studies in 1860. I took part in the horrible surgery of the Civil War—as we now know it was. I have taught anatomy and surgery to not far from 10,000 students. I taught and practised the old dirty surgery—the only kind we then had—up to October 1, 1876. Since that date I have practised and taught the new antiseptic surgery, which has been created by researches similar to those now proposed. Since the great war began I have diligently studied the newest surgery. I submit, therefore, that I may be presumed to be fairly familiar with these three stages of surgery. Let me give now a few examples of some of the things that HAVE "been discovered by it—[vivisection]" and that "*are* beneficial to the human race."

I may remark in passing that animals themselves have benefited by the same means, almost, and possibly quite as much as the human race.

1. *Typhoid Fever.*—This has been one of the historic scourges of armies. In 1880 the bacillus—the cause of the fever—was discovered. It was soon proved that the disease was spread through infected milk, infected water, and very largely by the house-fly. The last, after walking over the excrement of a typhoid patient, and then walking over our food, conveyed the disease. Prevention of contamination by these three means—sanitary measures based on the discoveries of bacteriology

prevent the disease to a large extent. But our real triumph over the disease was not achieved until lately.

I may here call attention to the fact that the antivivisectionists entirely reject bacteriology, a science which has disclosed to us the causes of many diseases, and has enabled us to prepare antitoxins to neutralize the poisons developed by these bacteria. Without bacteriology the physician and the surgeon to-day would be as helpless as a mariner without a compass.

	Cases.	Deaths.
During the Civil War typhoid fever resulted in.....	79,462 and	29,336
In the Boer War there were.....	58,000 and	8,000
(In that war the total number of deaths was 22,000. Typhoid alone, therefore, was responsible for more than one third of all the deaths!)		
In our war with Spain there were.....	20,738 and	1,580
(Our Army numbered 107,973 men. Therefore every fifth soldier fell ill with typhoid in 1898! Over 86 per cent. of all deaths in this war were due to typhoid!!)		

During the Boer War imperfect attempts were made to control typhoid by an antitoxin similar to that against diphtheria, which has saved such multitudes of children. Gradually the method has been improved so that in our army it was at first recommended as a voluntary protection (1909). The results were so favourable that in 1911 it was made compulsory. It has been said that it should still be voluntary. But as every case of typhoid imperils the health and life of multitudes we surely have a right to make it compulsory so as to protect all the rest. All that is necessary to prove this is to look at these tables of cases and deaths in our Army and Navy.

TYPHOID FEVER IN THE UNITED STATES ARMY.

Year.	Cases.	Deaths.
1906	210	12
1907	124	7
1908	136	11
1909	173	16

ANTI-TYPHOID VACCINATION MADE COMPULSORY.

19	70	8
1912	27	4
1913	4	0
1914	7	3
1915	8 ¹	0

TYPHOID FEVER IN THE UNITED STATES NAVY.

1909	189	17
1910	193	10
1911	222	15

¹Four in the United States; four in Hawaii.

ANTI-TYPHOID VACCINATION MADE COMPULSORY

1912	57	2
1913	22	4
1914	13	0
1915	15	1

On the Mexican border, though the fever was rife near the camps, only *one man* out of 20,000 troops, a civilian, who unfortunately escaped vaccination, fell ill with it.

Now let us see the results in the armies in the present war.

In the British armies, on March 1, 1917, Mr. Forster, Under Secretary for War, stated in the House of Commons that

The last weekly returns showed only twenty-four cases in the four British armies in France, Salonica, Egypt and Mesopotamia. He added that the total number of cases of typhoid fever in the British troops in France down to November 1, 1916, was 1,684, or para-typhoid,¹ 2,534, and of indefinite cases, 353, making a total of 4,571 of the typhoid group.

Now the English armies number at least 5,000,000. If they had suffered as our Army did in 1898 there would have been 1,000,000 cases! In fact there have been less than 4,600! Besides that, the percentage of fatal cases in the inoculated men was 4.7 per cent., in the uninoculated 23.5 per cent.; and perforation of the bowel, the most dangerous complication, occurred *six times more frequently* among the unvaccinated than among those who had been protected. In the British armies the anti-typhoid vaccination is still voluntary but over 90 per cent. are thus protected. *If it had been compulsory, hundreds of the 4,571 who died would have been saved!*

In our own army in over four months (September 21, 1917, to January 25, 1918) a period one month longer than our war with Spain (the Surgeon General's Office gives me the official figures), we have had an average (*i.e.*, every day of these four months), of 742,626 men in our cantonments and camps. These men have come from all over the country, in many cases from where autumnal typhoid was reaping its annual harvest, in practically all cases unprotected by the vaccination. Between these two dates there have been 114 cases of typhoid and 5 of paratyphoid. *Had the conditions of 1898 prevailed there would have been 144,506 cases instead of 119 in all.* The reason is clear. The men were all immediately vaccinated against typhoid, paratyphoid and smallpox.²

Besides this as soon as the antityphoid inoculation was completed the number of cases rapidly fell and from December 14 to January 25—six weeks!—there have been only 6 cases of typhoid and one of paratyphoid among probably now nearly 1,000,000 men! Truly marvellous!

¹A form of fever caused by a bacillus somewhat similar to the typhoid bacillus but causing a much milder infection.

²Of the latter disease there have been only 4 cases, all unvaccinated.

Now all this is the *direct result of bacteriological laboratory work*. Was it not worth while? Has it not "benefited the human race"? Are you not glad that *your son* is thus protected?

I may add that the German armies show a similar absence of typhoid. I have seen no figures but only general statements.

Tetanus or "Lock-jaw".—Few people realize what terrible suffering this disease causes. The mind of the patient is perfectly clear, usually to the very end, so that his sufferings are felt in their full intensity. All of my readers have had severe cramps in the sole of the foot or calf of the leg. The pain is sometimes almost "unbearable." In tetanus not the muscles of the jaw alone are thus gripped, but the muscles all over the body are in cramps ten or twenty fold more severe, cramps so horrible that in the worst cases the muscles of the trunk arch the body like a bridge and only the heels and the head touch the bed!

Never shall I forget a fine young soldier during the Civil War who soon after Gettysburg manifested the disease in all its dreadful horror. His body was arched as I have described it. When at intervals he lay relaxed, a heavy footstep in the ward, or the bang of a door, would instantly cause the most frightful spasms all over his now bowed body and he hissed his pitiful groans between tightly clenched teeth. The ward was emptied, a half-moon pad was hung between the two door-knobs to prevent any banging; even the sentry, pacing his monotonous steps just outside the ward, had to be removed beyond earshot. . . . The spasms became more and more severe, the intervals shorter and shorter; it did not need even a footfall now to produce the spontaneous cramps, until finally a cruelly merciful attack seized upon the muscles of his throat and then his body was relaxed once more and forever. He had been choked to death.

Do you wonder at the joy unspeakable which we surgeons have felt of late years as we have conquered this fearful dragon? In 1884 the peculiar germ, shaped like a miniature drum-stick, was discovered. Its home is in the intestines of animals, especially horses. The soil of France and Belgium has been roamed over by animals and manured for over 2,000 years, even before Julius Cæsar conquered and praised the Belgians. The men in the trenches and their clothing are besmeared and bemired with this soil, rich in all kinds of bacteria, including those of tetanus, gas gangrene, etc. When the flesh is torn open by a shell, ragged bits of the muddy clothing or other similarly infected foreign bodies are usually driven into the depths of the wound. Now the tetanus bacilli and the bacilli of "gas-gangrene" are the most virulent of all germs. It takes 225,000,000 of the ordinary pus-producing germs to cause an abscess and 1,000,000,000 to kill, while 1,000 tetanus bacilli are enough to kill. This readily explains the frightful mortality of tetanus during the Civil war. It killed 90 patients out of every hundred attacked.

In the early months of the Great War the armies suddenly placed in the field were so huge that there was not a sufficient supply of the anti-toxin of tetanus. Hence a very considerable number of cases of tetanus

appeared. Now it is very different. At present every wounded soldier, the moment he reaches a surgeon is given a dose of antitetanic serum. As a result, *tetanus has been almost wiped off the slate.* I say "almost," because to be effective the serum must be given within a few hours. The poor fellows who lie for hours and even days in No Man's Land can not be reached till too late. All the surgeons on both sides concur in saying that tetanus, while it still occurs here and there, has been practically conquered.

Every step of this work has been accomplished by the bacteriologists and the surgeons working together in the laboratory and the hospital.

Would you seriously advise that no such experimental researches should have been carried on and that your boy should suffer the horrible fate of my own poor Gettysburg boy? Confess honestly, are not these and other similar researches to be described as humane?—as desirable?—nay, as imperative?

But the antivivisectionists declare that bacteriology is false—that such vaccination is "filling the veins with 'scientific filth' called serum or vaccine"! They are doing their best to persuade our soldiers not to submit to any such "vaccination"!

Nay, more "we feel," say forty-one of our medical officers on duty in France, "that any one endeavouring to stop the Red Cross from assisting in its humanitarian and humane desire to prevent American soldiers from being diseased, and protecting them by solving the peculiar new problems of disease with which the Army is confronted *is in reality giving aid and comfort to the enemy.*"

Small-pox.—The word vaccination leads me to say a word about small-pox. I confess that I was amused by a recent paper in an anti-vivisection journal entitled "Vaccination as a Cause of Small-pox"! During the last year hundreds of thousands of soldiers have been vaccinated against small-pox. Surely there should have been *some* cases of that disgusting disease if it were caused by vaccination.

But what are the facts? I have just received the Report of Surgeon General Gorgas for 1917. The section on Small-pox reminds one of the celebrated chapter on "Snakes in Ireland." On p. 81 on Small-pox in the Army in the United States, I read "*No cases of small-pox occurred within the United States proper during the year.*" On p. 175, I read "*No cases [of small-pox or varioloid] occurred in the islands*" [among the American troops in the Philippines]. On p. 188, I read under Small-pox that "*nine cases occurred during the year*" [among the Philippine Scouts].

My friend and former student, Dr. Victor G. Heiser, as director of health in the Philippine Islands for years, vaccinated over 8,000,000 persons without a death—and with what result? In and around Manila

the usual toll of small-pox had been 6,000 deaths and about 25,000 cases annually. In the twelve months after his vaccination campaign was finished there was *not one death* from small-pox.

Per contra, in 1885 in Montreal, as stated by Osler, one Pullman porter introduced small-pox into a largely *unvaccinated* city. There followed 3,164 deaths and enormous losses to the Montreal merchants.

But why say more? We all know that a single case in any community causes every intelligent person to be protected by vaccination.

Gas-Gangrene.—One of the terrible and new surgical diseases developed by this war is called "gas-gangrene." It has no relation to the poisonous gases introduced by the barbarous Germans at Ypres. About twenty-five years ago Professor W. H. Welch, of the Johns Hopkins Hospital, discovered a bacterium which *produced gas* in the interstices between and in the muscles. This bacillus does not occur in Great Britain. I never saw a case of gasgangrene in the Civil War, and but one case since then in civil practise. On the contrary in Belgium and France in the soil, therefore, on the clothing and on the skin of the soldiers these bacilli abound. From what Bashford calls the "cess-pool of the wound" the germs travel up and down in the axis of the limb. If it escapes from a puncture it will take fire from a match. Gas has been observed within five hours. An entire limb may become gangrenous within sixteen hours. If the whole limb is amputated the gas may be so abundant that the limb will float in water! Death is not long delayed.

Now your son in France runs a very serious risk of becoming infected with this deadly germ. Would you be willing positively to forbid any experiments on animals which could teach us how to recognize this infection as early as possible? Would you forbid any experiments which might teach us how to *conquer* or better still to *prevent* this virulent infection and save his life? Which would you prefer should suffer and very possibly die, a few minor animals or your own son? If a horse or a dog or even a tiny mouse can help in this sacred crusade for liberty and civilization, if it even suffers and dies, is it not a worthy sacrifice? Should they be spared and our own kith and kin give up their lives?

I need not wait for a reply! I am sure you would say "My boy is worth 10,000 rabbits or guinea-pigs or rats! Go on! Hurry, hurry! and find the remedy." That is *true humanity* which will save human lives even at the expense of some animals' lives.

Now see the result. By careful observation and experiments with different remedies the surgeons have discovered valuable methods of treatment. But very many still die. *Prevention* is always far better than cure. At the Rockefeller Institute Drs. Bull and Ida W. Pritchett have discovered a serum which in animals *prevents* this gas-gangrene and yet does no harm to the animal. It is now being tried on the soldiers in France.

Again I ask: Is it not our duty even to *insist* on such experiments so that our troops may be spared the dreadful suffering and even death following this virulent infection? If the Bull-Pritchett serum proves ineffective should not our efforts be redoubled? The common sense of the American people will reply: "Yes, by all means. You will be recreant to humanity and to your duty if you do not."

Modern Surgery.—"Lister," in Howard Marsh's fine phrase "opened the gates of mercy to mankind." Pasteur and Lister are the two greatest benefactors of the human race in the domain of medicine. I am not sure but that I might even omit the last five words.

The *revolution* which Lister produced in surgery is so well known to every intelligent person that I need only say a few words. Forty years ago a wholly new surgical era was inaugurated by Pasteur and Lister. In the Civil War there were recorded 64 wounds of the stomach and only *one* recovered. Otis estimated the mortality at 99 per cent. In over 650 cases of wounds of the intestines there were only five cases of recovery after wounds of the small bowel and 59 from wounds of the large bowel—together only 64 out of 650 recovered, *i.e.*, over 90 out of every 100 died!

The complete statistics of the present war can not be tabulated and published for some years. I give, however, the result of one series of abdominal gunshot wounds as a contrast, on a far larger scale and in far worse wounds. Out of 500 such operations, 245 *recovered!* and only 255 died! Contrast 51 per cent. of deaths in these wounds with mutilation and infection unutterably worse than in the Civil War, with 99 per cent. of deaths, according to Otis.

Is not this a triumph of bacteriological and surgical research? Would you prohibit similar researches now when your boy's life may be saved by them?

Is not this one of the things that *have "been discovered"* by vivisection and has not such change in surgical treatment been of "*benefit to the human race?*" In all honesty would you be willing to have your son treated as I myself (may God forgive me!) ignorantly treated hundreds during the Civil War?

This advance I do not *think* or *BELIEVE*, but I *KNOW* is due to Pasteur and Lister and their followers. I know it by personal experience just as you know the high cost of living, the shortage of sugar and the scarcity of coal.

The bacteriology which the antivivisectionists scorn and reject I *KNOW* is the CORNER-STONE of modern surgery. Before Lister's day out of 100 cases of compound fracture 66 died from infection. Now *less than one* out of 100 die. Before Lister my old master in surgery, Dr. Washington L. Atlee, one of the pioneers in practising ovariotomy, lost two out of every three patients—now only two or three in a hundred die.

Before Lister we never *dared* to open the head, the chest or the abdomen unless they were already opened by the knife, the bullet or other wounding body. Now we open all of these great cavities freely and do operations of which the great surgeons of the past never dreamed in the wildest flights of their imagination. Could they return to earth they would think us stark crazy until they found that the mortality was almost negligible and the lives saved numbered hundreds of thousands.

I have given but a few instances of the many wonderful benefits which have resulted from medical research in every department of medicine. But I believe they are sufficiently convincing, I can sympathize with the deep feelings of those who wish to spare pain to animals, but is it not a higher and more imperative, a holier sympathy that has spared and will spare pain eventually to human beings and also to other animals in uncounted numbers?

Do you wonder that after over forty years of steady practise, teaching and writing I assert, conscious of the great responsibility of my words, that "I regard experimental research in medicine as a medical, and a moral and a Christian *duty* towards animals, towards my fellow men and towards God."

There is so much yet to be learned chiefly, by experimental research. So many devoted lives to be saved to our country and to mankind if we only knew how! Do you wonder that I am in dead earnest?

Finally. What have the antivivisectionists themselves done to diminish sickness and save life?

A. In animals? Absolutely nothing.

In spite of the enormous ravages of animal diseases causing enormous suffering to animals and costing this country \$215,000,000 every year, not a single disease has had its ravages diminished or abolished as a result of anything *they* have done. But medical research is saving every year thousands of animals from anthrax, hog cholera, chicken cholera, Texas fever and other diseases.

B. In human beings? Absolutely nothing. I do not know a single disease of human beings which has had its ravages checked, abated or abolished by any work ever done by the antivivisectionists.

The only thing they *have* done has been to throw as many obstacles as possible in the path of those who are striving to benefit both animals and men.

This present suit is characteristic.

The Social Background

The Social Unit Plan and Public Health

MARY JOPLIN CLARKE.

A VERY interesting and suggestive experiment in democratic organization is at present being tried at Cincinnati by the National Social Unit Organization. It is startlingly novel in the simplicity of its method and in the fundamental character of the social ideals that inspire it. Starting from the results of experience gained in the operation of milk stations in New York, and of Baby Welfare work in Milwaukee, Mr. and Mrs. Wilbur Phillips have worked out their plan empirically, and are putting it into operation as a laboratory experiment, willing to submit their "working hypothesis" to the test of facts as the experiment proceeds. Their idea is in brief to organize districts composed of a number of blocks, of about 500 persons each, as geographical units, having in each block a worker, elected democratically, who shall represent the needs and opinions of that block in a district council and act as intermediary between the people of the block and the various professional groups such as doctors, nurses, teachers, etc., who come into contact with those people. Parallel with this organization the district is in time to have its various occupational groups organized into councils with executive heads through which community service can be performed. By this means the foundation of occupational democracy are laid alongside of geographical democracy, and through the block worker the two are harmonized in their inter-relations.

A certain district was chosen for the initial experiment and the starting point has been the health service. Cincinnati had no elaborate Baby Welfare work when it invited the National Social Unit Organization to try its experiment there, and the private social agencies on the ground promised their co-operation to the extent of withdrawing when this organization should be ready to take over any particular service. Mr. and Mrs. Phillips first laid their plans before the Medical Society to which the doctors who were practising in this district belonged. It was at first received with suspicion as savoring too much of "the socialization of medicine". This accusation its sponsors were willing to agree to, but they pointed out that this was the only plan which offered the doctors a chance of determining the way in which that socialization,

seen to be almost inevitable, should be brought about. Three doctors among the group liked the plan, and worked to convert their fellow practitioners until it was finally possible to organize the medical council desired. In this organization and in the election which followed, the Executives of the Social Unit Organization took no part. The choice however fell upon the very man whom they would have selected, one of the first to become enthusiastic about the idea. The Council then proceeded to organize the service of the Health Station, each doctor being paid by the Unit Organization for the time which he spent in attendance upon the clinics. The fear that this "free service" would decrease private practice was not justified, as the discovery of defects in the clinic tended rather in the opposite direction. The gradual tendency of the work however will be to increase the preventative side of medicine, which will be paid for by the community as a whole, and correspondingly to decrease the necessary amount of curative work. As preventative work is being done by the doctors of the district themselves, and under the direction of their own council, this involves no hardship to them, and is a very evident benefit to the community.

"But what about the expert?" someone is sure to ask. "If you take the ordinary practitioner for your baby clinics will he be able to give efficient service?" The answer to that objection is that the less efficient doctors or even the unenlightened ones will do harm whether they practice privately or in a public health station, and that the only way raise the medical standard in a community is to create a group consciousness among the medical men themselves whereby they may proceed to create standards of efficiency for themselves. As long as each doctor works alone in competitive private practice it is impossible to "check up" his work, and there is no machinery for placing the experience of each individual at the service of the rest. With a Medical Council, organized for Community Service, the case is different. Experience has already shown in Cincinnati that the Medical Council offers opportunities for enlightenment of the members through their joint efforts to cope with the problems of public health. The Executive of the Council was sent by the Organization on a trip to Cleveland to study Pediatric work in that city, and on his return was able to pass on what he had learned to the other members. A programme has been drawn up by the Council whereby its different members are to make themselves responsible for the study of one particular subject of medical science, for the benefit of the rest. It may be true that despite all these efforts the local doctors will not equal the specialists in ability, but it is at least possible that the increased efficiency of the whole group is worth as much to the community as a whole as the service of a single specialist would be.

The keystone upon which the whole structure of the Unit Plan rests is the Block Worker. At the present time these workers are all women, as the starting point was Baby Welfare work it was obviously necessary that this should be so. As the plan develops, and as the need arises, it would be possible to change this, but at present the women are best fitted for the task in hand. These women were in the first instance elected by as many people of the block that they represent as were sufficiently interested to take part in the election. This may not have been a wholly "democratic" franchise, but it was at least as democratic in essence as any election can be, and there is no doubt that in the future, when the block worker has become a recognized "institution" in her district that her choice will be a matter of interest to all her constituents. Therein lies the value of the small unit. It is a recognized fact that our democratic machinery is too unwieldly to all that constant interaction between representatives and electorate that is necessary to ensure real popular control, and the function of the block worker has been designed to overcome just this difficulty. Sitting in council with the workers of other blocks she has a voice in determining the course along which the public service of the organization shall develop, and she has an opportunity to express the opinion of her constituents about the work that is being done. The Organization as a whole is pledged not to undertake any form of investigation for any purpose whatever until it is desired by the workers' council. In this way the countless visitors, with or without questionnaires, who at present invade the homes of "the poor" in search of some sort of information are eliminated, while at the same time the machinery is created for the accumulation of statistical material which shall be much more complete and more valuable in every way than that which is collected by the professional "investigator" as it will be given willingly by people interested in the object for which it is being secured, to one of their own number who is personally familiar with them. In her work among the people of her block this leader is able to create a sympathetic attitude between the people and the various community services undertaken by the Organization. In the Baby Welfare work which is the only service in operation to date, she can put the nurses in touch with homes that need them, persuade mothers with babies to attend the clinic and generally work towards educating the people regarding the importance of baby hygiene. It may be objected here that, being herself one of the people she is not capable of understanding the problems with which she deals. It has been just this assumption in the past that has led us to build up our various community services over the heads of the people with the result that we have never been able to secure their intelligent co-operation. The block workers may not have expert knowledge, but she is interested in health problems, and her

constant daily contact with the doctors and nurses teaches her a great deal. It has, as a matter of fact, awakened the block workers to a sense of their need of further knowledge, and they have asked for a course of lectures on Baby Welfare in order that they may be able to direct their people in a more intelligent way. It is probable that as the scheme progresses this educative feature of the work will develop considerably.

This, in brief, is the plan as it applies to the district, how is the work of the small unit to be linked up with the whole municipality and eventually with the national government? There is no hard and fast programme set for the development of the plan. Having set a democratic machinery in motion its originators are willing to allow the course of events to be guided by the people as they express themselves through that machinery. Nevertheless they have in their own minds a conception of the whole society into which this may fit, and of which it will be the foundation stone. This scheme is not unlike that advanced by the British Labour Party, for a democracy that shall be at once political and economic. It is built upon the principle of parallel organization of geographical and occupational groups. We have seen how this is accomplished in the small locality. It is not difficult to imagine how this plan might develop into a nation-wide organization culminating in two legislative chambers, the one elected by the people as citizens according to their residence, and the other by the people as workers organized according to their occupation. The latter chamber would be expected to furnish expert advice on all subjects relating to the industries and occupations of the nation, the former would be the legislative body in which ultimate power would reside. There need be no fear, however, that the Unit Plan will issue in any rash and unconsidered "revolutionary" programme. Its machinery is so constituted as to be self-checking, and progress can only be made as the people themselves are ready for it. To some this may seem like too slow a movement. To any one who believes in democracy, however, it is the slow and steady pace which will ultimately bring us to the goal more speedily than other hastier advances that fail to carry the bulk of public opinion behind them.

The Physician as a Factor in Social Efficiency

F. N. STAPLEFORD.

THE importance of the contribution which the medical profession can, and is making to social welfare, becomes increasingly evident as the analysis of the causes of social weakness becomes more accurate. The social problem in its widest aspect is simply the problem of human happiness. Making life varied, interesting, and full

of zest necessarily rests upon the possibility, not alone of eliminating disease, but of creating a reservoir of physical vitality which will render attractive the various pursuits and activities through which happiness is alone obtained. The happy life is the one in which there is a well balanced expenditure of energy. Fatigue, disease and lowered vitality make for a general drabness and meanness of life because effort then becomes irksome.

The physician then is dealing with the physical substratum of happiness. A few choice souls may be able by force of will, to prevent physical disabilities from limiting the freedom and fullness of their life. The many, however, find those limitations an insuperable obstacle. The contribution which the medical profession can make to that problem of increasing the breadth as well as the length of life, is of fundamental importance.

In the narrower aspect of the social problem, dealing with that 10% of our population which we uncritically and somewhat contemptuously dub "the poor", the part played by the physician is even more clear. According to the statistics supplied by Dr. E. T. Devine, the Director of the New York School of Philanthropy, ill health is at least one of the contributing factors leading to dependency in almost three-quarters of the cases. He made an analysis of the conditions which forced 1,000 families in the year 1906-7 to apply for relief for the first time. This was a year fairly normal from the employment standpoint. It was found that physical disability was one of the contributing causes in 764 of these cases. This does not mean of course that in 76% of the cases of dependent families, physical disability is the sole or determining cause. There are usually a great complexity of factors many of which belong to the economic realm, but in a very large number of cases where families are making a brave fight for self-maintenance, sickness or accident to one of the members is sufficient to defeat their efforts. In not less than 25%, and in all likelihood in a very much larger percentage than this, physical disability is not simply one of the contributing factors, but the determining factor leading to dependence.

There is nothing particularly new about this. Facts of this kind are a commonplace among physicians and social workers. There is a general realization that poverty is to a large extent, a public health problem. It is simply pointed out here in order to show how important it is that the members of the medical profession should have the social mind, and see their work in relation to that whole of social efficiency which should be the goal of all effort.

The relation of a physician to his patient is not then merely a private matter. The former is in a sense an official discharging a public function, and the public as a whole have the right to demand an ever

rising standard of efficiency. This has been always more or less acknowledged in the code of the profession, which has always demanded that the emphasis be laid upon the rendering of a service not the receiving of a profit. The members of the medical profession deserve well of their fellows, for there is no other class which displays more unselfishness. The social worker (and this article is written solely from the standpoint of the social worker), the writer possessing not a shred of medical knowledge, has every reason to be grateful for the hearty co-operation and readiness of response he finds when he calls upon physician or surgeon in cases where no financial return is possible. In the ordinary course of their work, most doctors do a large amount of work without remuneration.

The present tendency towards a closer relationship between the physician and the social worker is a welcome sign of the time, both can render valuable services to the other. The social worker badly needs to learn lessons in diagnosis and technique from the physician. When this is done much of the present ineffective social work will be prevented. The social worker however not infrequently meets in his work the results of very cursory and hasty work on the part of the medical profession. Incompetence is a serious enough matter anywhere, but it becomes little less than a crime when its result is not simply suffering to an individual, but the submergence of a family. There are families not a few, which are a source of social weakness simply because some member of the medical profession was not up to his job. The profession has higher standards than those prevailing in most other professions, and yet incompetents manage to secure a diploma occasionally and to proceed to capitalize it. Probably much more frequently the physician is too busy to do really scientific work. The social worker cannot but note in the families he is trying to help that much of the difficulty, having its origin in ill health, is due to a lack of thoroughness on the part of the doctor called in. A hasty visit, a superficial examination and a prescription for the inevitable bottle of medicine, occupy very little time and often involve very little intelligence. The patient may recover because of, or in spite of the medicine, but it sometimes happens that a morbid condition which would yield to scientific treatment becomes chronic and the family is possibly reduced to partial or complete dependency. What social worker is there who has not found cases where ill health was the root cause of the family's difficulties and yet when the attempt was made to persuade the sick one to undergo treatment, the worker has been met with a complete cynicism on the part of the sufferer as to the ability of the doctor to in any way help? The patient has probably gone from clinic to clinic and from doctor to doctor and has obediently swallowed the contents of many boxes and bottles until faith

failed. In some cases the patient would not follow out a course of treatment, and thus is responsible for his own condition. But in other cases the difficulty lay in the fact that the physician did not take the time and the trouble necessary for an accurate diagnosis.

Most of the difficulty lies in the fact that good doctors have too much work to do and the results achieved are really wonderful considering the pressure under which they work. Some day health may be a public function entirely and physicians and surgeons of ability will be under salary from the state. No longer will the necessity of securing an income compel them to spend too much of their valuable time treating ills which are either imaginary or of trifling importance. Even now with the rapid extension of the funds in municipal and health departments, the medical profession is becoming increasingly socialized, and the handicaps under which the poor labour in the matter of health, as in all other things, is being removed. The inalienable right of all to health as well as to "life liberty and the pursuit of happiness" is now being recognized, and the changes necessary to give this right practical effect are being rapidly made. In that new city, which is at once the dream and the task of so many of the finer spirits of the day, the physician will occupy a position of commanding importance. Upon his devotional disinterestedness and efficiency will depend to a large measure its ultimate success. The work of the physician in its broad aspect is linked to all the new adventures in fraternity, those strivings of the human spirit to achieve a social order, which shall equalize opportunity and bring to realization the treasure of the human soul.

The following short articles by the Rev. P. J. Bech, Superintendent of Catholic Charities, Toronto, will be read with much interest by our readers.

THE RESPONSIBILITY OF THE UNCHARITABLE.

IF YOU can prevent a man from starving to death by giving him food and drink, and do not do so, you are guilty of his death. In the same way mothers and others who connive with them, to place infants in institutions or private boarding homes to escape nursing them, or giving them the personal attention that only a mother can give and which is essential for the well-being of the child, cannot be excused from being a party to the death of the child, if it should follow through such shirking of responsibility. For that reason, we will not accept infants, unless for some very good and serious reason, into our home, without the mother.

"THE POOR" SHOULD NOT MEAN "PAUPERS".

Between the words "poor" and "paupers" there is a distinct difference in meaning; nevertheless, they are frequently used as if they were interchangeable. When Our Lord said: "Blessed are the poor." He did not mean "Blessed are the paupers," He meant men who owned something—who were not entirely dependent on the charity of others. He meant men who owned boats and fishing nets. But the very poor, those who are downright, hideously poor, have every right to cry out against and complain of their poverty. The pauper should then allow the community no rest until he is on friendly terms with a little more of the mammon of iniquity. He ought not to be content with pauperism, because normally speaking, pauperism is a hindrance both to bodily and spiritual welfare.

THE MAD RUSH.

On one occasion Professor Huxley was late in keeping his appointment in Belfast. Leaving the train, he hastily took a cab and shouted to the cabman, "Drive fast," and away the cab went, till the question arose in the Professor's mind whether he had told the driver where to go, so he shouted to him: "Do you know where you are going?" Whereupon the driver replied: "No Sir, I don't know where I am going, but I am driving fast." Many with whom we come in contact remind us of this incident. They are "driving fast" without knowing where they are going.



The Provincial Board of Health of Ontario

JOHN W. S. McCULLOUGH, M.D., D.PH., Chief Officer of Health.

Reports of Local Boards

A NUMBER of Local Boards of Health having failed to send in the Annual Reports required by law, the Board has sent out the following circular to the Secretaries of the Boards in default. Medical Officers of Health are requested to take notice, and if they have not done so to file their reports at once so that the Secretary may send them to the Provincial Board of Health.

Toronto, March 12th, 1918.

Secretary, Local Board of Health:

"Sir,—R.S.O. Chap. 218, Sec. 115, S.S. 3, reads as follows: 'The Chairman of the Local Board of Health shall, before the 1st day of December in each year, present to this Council a report containing a detailed statement of the work of the Board during the year, and a report of the sanitary condition of the municipality, as rendered to the Board by the Medical Officer of Health. *A copy of each such report shall be transmitted by the Secretary to the Provincial Board of Health,*'"

"It appears that the aforementioned reports have not been received at this office. Your immediate attention to this matter will oblige."

CASES and DEATHS from COMMUNICABLE DISEASES reported by The Local Boards of Health for the month of February, 1918.

THE reports of the Local Boards of Health for the Month of February, 1918, show that SMALLPOX prevails to about the same extent as in January last, or 82 more cases than in the corresponding month of 1917. The cases are scattered from Prescott County in the East to Essex in the West, to Nipissing and Sudbury in the North. The Counties of Kent and Lambton reported 33 cases out of the 88 for the Province. The places reporting from Kent are: Chatham City 4, Chatham Township 1, Harwick Township 13, Dresden Town 4, Camden Township 2, Oxford Township 1; Lambton County: Sarnia City 9; Dawn, Brook, and Sarnia Townships 1 each, Bosanquet Township 3 and Forest Village 3. The Township of Capreol in Nipissing District reported 14 cases. Sudbury District reported 10 cases from the following places: Town of

Sudbury 2, Copper Cliff 4, Foleyette 4. Prescott and Russell reported 10 cases as follows: Vankleek Hill 4, East and West Hawkesbury Townships 3 each. Alexandria Town in Glengarry 4 cases. Waterloo Town 2, and Toronto 1.

It will be observed SCARLET FEVER is much more prevalent than in the corresponding Month last year, there being 357 cases as against 141, or an increase of 184, but only four deaths were reported.

DIPHTHERIA cases are the same as in February, 1917, as may be seen in the COMPARATIVE TABLE, there being 289 cases with 18 deaths, or a death rate of 6.1 in 100. In January last we had 379 cases with 29 deaths. Windsor reported 16 clinic cases and 26 carrier cases, and Walkerville 4 clinic cases, and 128 carrier cases.

The COMPARATIVE TABLE will show the decrease or increase for the other Communicable Diseases.

It is gratifying to know that the Province is entirely free from INFANTILE PARALYSIS.

COMPARATIVE TABLE.

Diseases.	February, 1918.		February, 1917.	
	Cases.	Deaths.	Cases.	Deaths.
Smallpox.....	91	0	6	0
Scarlet Fever.....	357	4	141	2
Diphtheria.....	289	18	278	19
Measles.....	861	6	1235	2
Whooping Cough.....	168	6	94	3
Typhoid Fever.....	35	3	20	4
Tuberculosis.....	131	69	144	70
Infantile Paralysis.....	1	0	4	0
Cerebro-Spinal Meningitis.....	15	10	16	12
	—	—	—	—
	1949	116	1938	112

The Health of Women and Children

THE writer recently had a most interesting chat with Dr. F. Truby King of New Zealand, who is on his way to England. Dr. King had for some years carried on a health mission among mothers, and in 1907 The Society for the Health of Women and Children was founded. The object of this society was the carrying on of educational work because it was felt that "a generally diffused knowledge and recognition of infant requirements and maternal duties would save the community one life per diem, and would correspondingly increase the strength and vitality of the rising generation". The results have been startling. In the years 1900-1907 the average death rate among children under one year was 8% (80 per 1,000 births). From 1907 to 1913 the average was 6.5% (65 per 1,000 births) and for the year 1912, 3.8%.

For the whole country of New Zealand the rate last year was 5% (50 per 1,000 births). The significance of these figures will be seen when they are compared with the rate per thousand births in other cities and countries as follows: Montreal 210, Petrograd 280, Paris 120, London 101, Ontario 102, Stockholm and Christiania 83, New York State 129, Massachusetts 131.

These notable results in the saving of child life in New Zealand are accomplished, according to Dr. King, by the efforts of the society. In the organization of the society he was able to secure the interest of Governor and Lady Plunket, the latter of whom threw herself whole-heartedly into the work and showed her intense interest by lecturing, demonstrating and personally helping the women and children. Lady Plunket knew something of the care of babies as she had personally looked after the care of ten of her own.

The main work of the society is carried on by means of nurses known from the name of the society's patroness "Plunket nurses". There are some twenty-two such nurses. Their chief work is sympathetically and tactfully to educate and help parents and others in a practical way in the hygiene of the home and nursery with a view to conserving the health of the whole family, while directing special attention to the needs of the mother and offspring.

The nurse works within a radius of fifty miles, makes periodical visits to the different communities, organizes local committees who carry on her work in the intervals between her visits. When the nurse visits a town her time is spent in the schools, attending mothers meetings, giving demonstrations, visiting homes, etc. At the schools a "demonstration" is given to the girls, using a live, winsome baby for the purpose of illustrating its proper nurture and care.

Outlying communities are reached by correspondence.

A small hospital is established to which mothers with their babies are encouraged to come for personal instruction. Instruction and advice are extended to expectant mothers. All this service is made available not only to the poor but also the well-to-do who, as Dr. King points out, are often the most badly informed as to the care of their babies.

The nurse's first duty is to inculcate the importance of breast feeding and to try to establish it. A propaganda of education is maintained by means of pamphlets and through the columns of newspapers, only the most authentic information being published.

The hospital is the only one of the kind affording accommodation for both mother and baby, in the world. The mother and her baby are kept there for a week or longer and in that time the mother is generally able to find a way out of her difficulties in the baby's care. Dr. King says "In one sense the healing of babies is the least important aspect

of our hospital work. The institution is a school for mothers, an ever-open object lesson, by means of which some thousands of visitors of all classes see and are taught personally every year the essentials for healthy motherhood and babyhood, while mothers who have any trouble with their babies are encouraged to become inmates for a week or ten days, so that they may be set upon the right track.

Not only is the hospital held available for the teaching of actual mothers, but we encourage potential mothers—girls in their 'teens and expectant mothers—to attend weekly classes and demonstrations, or to enter the institution for a short course of training. Further, a guild of sixty girls was organized some years ago, each to spend an afternoon once a month handling and looking after the babies in the grounds, thus helping to provide the "mothering" element, apt to be lacking in institutions, and at the same time implanting and developing motherly tendencies and aptitudes in the girls themselves.'

The Society is supported by Government and voluntary funds in proportion of 6 to 5.

THE LESSONS FOR ONTARIO.

The foregoing description of the work of the New Zealand Society seems to give emphasis to a few points which may be outlined briefly:

1.—The recognition that not only in cities but in country districts provision should be made for instructing mothers in the care of babies; for teaching young girls all practical methods of home making, including baby hygiene and feeding; for giving proper hospital care to sick babies; and for maintaining conferences where mothers can have their children examined and can thus learn of any bad condition before the trouble has progressed beyond recovery.

2.—The need of definite knowledge of just what the problem is in the different communities.

3.—The need of co-operation between volunteer and public health authorities in reducing the infant mortality.

4.—Recognition of the merit of the methods of the New Zealand society for consideration by club women and others in making plans for infant-welfare campaigns in small towns and rural communities in Ontario.

5.—The value of methods which include districting the territory in a Province and organizing local committees having supervision of the welfare work; the employment of nurses whose services are chiefly educational; newspaper publicity; and the publication of pamphlets and other literature on hygiene and the care of babies and children, containing advice vouched for by the best medical authorities and expressed in direct, simple language.

Provisional Programme
COMBINED MEETING
Canadian Public Health Association
AND
Ontario Health Officers' Association

HAMILTON MEDICAL WEEK

May 27th-June 1st

1918

Presidential Address, Canadian Public Health Association—"A Plea and a Plan"—W. H. Hattie, Halifax, N.S.

Presidential Address, Ontario Health Officers' Association—H. W. Hill, London, Ont.

"The Public Health Nurse"—J. A. Baudouin, Lachine, Que.

"The Care of the Feeble Minded"—Dr. Blackadder, Montreal.

Paper "The Control of Venereal Disease"—M. M. Seymour, Regina, Sask.

"The Care of Diphtheria"—A. B. Rutherford, Owen Sound.

"Good Public Health Service in Small Towns and Rural Municipalities"—J. J. Harper, Alliston.

"Hints on Rural Health Administration"—J. W. S. McCullough, Toronto.

"The Control of an Outbreak of Diphtheria"—W. C. Allison, Toronto.

"The Trail of the Medical Vampire"—Frederick Paul.

"Health Insurance"—Chas. J. Hastings, Toronto.

"The Venereal Disease Problem"—Gordon Bates, Toronto.

"Why is it Worth While to Establish Sewerage in a Small Town?"—F. A. Dallyn, Toronto.

"Interpretation of Water Analysis"—H. M. Lancaster, Toronto.

"Mental Hygiene"—Clarence M. Hincks, Toronto.

Symposium on Child Welfare.

Chairman's Address—Alan Brown, Toronto.

"Child Welfare in War Time"—Isaac Abt, Chicago.

"Progress in Child Welfare Work in Europe"—Grace L. Meigs, Washington, D.C.

"The Results of Three Years' Work in the Department of Child Hygiene, Toronto"—Geo. Smith, Toronto.

"The Medical Student in His Relation to Infant and Child Welfare Work"—Richard Bolt, Cleveland, Ohio.

"The Management of a Child Welfare Week in Small Cities and Towns with Results"—Mary Power, Toronto.

"Round Table Discussion and Subscription Luncheon"—Alan Brown, Chairman.

Correspondence

184 Bloor Street East,
Toronto.
January 30th, 1918.

The Editor,
"Public Health Journal,"
169 Bay Street, City.

Dear Sir,

Allow me to congratulate you upon the make-up of the January issue of the PUBLIC HEALTH JOURNAL. It is neat, compact, and altogether I think it is a great improvement.

Wishing your publication every success, I am,

Yours sincerely,

H. B. ANDERSON.

Editorials

A Canadian Medical Week in Hamilton

ARRANGEMENTS for the big Canadian Medical Week have progressed favourably and we are now in a position to make some announcements regarding the programme.

A personal conference in Ottawa with Surgeon-General Fotheringham of the Militia Department and representatives of the other agencies interested in the returned soldier problem, resulted in bringing the plans for the symposium on this subject for Wednesday evening to a very satisfactory status.

Professor Barker of Baltimore will give the address in Medicine; Dr. Chas. Mayo, Rochester, in Surgery; Dr. Isaac Jones of Philadelphia, on the Ear. Regarding the work in the sections, the general principle will govern in all that there will be a very few papers, but it is the expectation of the committee that each paper presented will promote a very elaborate discussion so that in a sense each will represent a symposium. The writers of the papers are asked to present a synopsis which will be ready and in the hands of the committee before March 25th, which will be available for those wishing to prepare anything for discussion.

In the sections of Medicine, amongst others the following have agreed to take part: Leonard Rountree of Minneapolis, Allan Brown and Smith of Toronto, Beatrice Hinkle of New York; W. Gordon Lyle of New York; J. Chandler Walker of Boston and Thomas McCrea of Philadelphia. On Eye, Ear, Nose and Throat: Cassey Wood of Chicago, Walter Parker, Detroit; John Wheeler of New York; Jos. Beck of Chicago; and H. Halsted of Syracuse. In Surgery: McGuire of Buffalo; Hyman, St. Louis; Guthrie of Sayre, Pa., and Henderson of Rochester, Minn.

It is proposed to have in addition to the regular Programme in sections and general sessions, an innovation in the nature of a round-table discussion on a matter of vital importance to the profession as a whole. Such will be arranged for late in the day when the regular programme is finished. Accommodation for this will be limited and all seats reserved.

Plans are also under way for the presentation of a most interesting collection of scientific exhibits. There will be a pathological exhibit which will include a very fine collection of museum specimens from the McGill University Museum, which will be in the personal charge of

Dr. Maude E. Abbott of McGill, and also an exhibit from the Babies' Hospital of New York City, of a number of specimens illustrating pneumonia in children. It is hoped also, to obtain similar exhibits of equal interest from the museums of Queen's, Toronto and Western Universities. There will be a series of daily demonstrations of clinical laboratory procedures, including those of special interest to the general practitioner, such as the Wasserman reaction, the colloidal gold functional kidney test, dark field for spirochaeta, and the preparation of serums and vaccines for therapeutic use.

In the X-ray exhibit plates are requested to be sent in by men interested in this work. There will be a daily informal demonstration and a lantern will be available for all those wishing to use it.

There will be shown daily from four to six p.m., moving pictures on medical and surgical subjects including subjects of interest to the general practitioner.

Definite information regarding many of these items will be available and published in the form of a bulletin for distribution on each day of the meeting.

The American Medical Association have offered the use of their charts illustration and literature, relating to the propaganda for reform, as carried on by that Association.

The Local Committee also wish to announce that it is their wish to carry out the programme and all entertainments with greatest respect for war conditions. While there will be no formal reception or entertainments the ambitious city will go the limit of its capacity in their efforts to make the visiting members welcome, comfortable and satisfied.

Mental Hygiene

An event quite unique in the history of Toronto took place on Tuesday, February 26th, at the home of Mrs. David Dunlap, Highlands Avenue.

The first steps in the internationalization of the splendid movement for Mental Hygiene were taken, and the formation of a Canadian National Committee for Mental Hygiene was decided upon. Mr. Clifford W. Beers, Secretary of The National Committee for Mental Hygiene in the United States was the chief speaker and in a manner which carried complete conviction, he outlined the early development of this movement, which he himself has done so much to establish and to forward. Dr. C. K. Clarke acted as Chairman of the meeting and Dr. Clarence M. Hincks as Secretary. Among the other speakers were Lieut.-Col. Colin Russell of Montreal, Dr. P. H. Bryce of Ottawa,

Dr. C. J. Hastings, Toronto, Dr. Helen MacMurchy, Toronto, Mrs. A. M. Huestis, Mr. David Dunlap, Dr. E. A. Bott and Major J. G. Fitzgerald, Toronto.

It was decided, as a result of this conference to at once have the Secretary of the meeting visit other cities in Canada with the idea of furthering the plans for the organization of a Canadian National Committee. It is expected that the preliminary work will be completed within the next month when the PUBLIC HEALTH JOURNAL will deal fully with the question.

The Red Cross and the Anti-Vivisectionists

We reprint in the current number of THE PUBLIC HEALTH JOURNAL a masterly article by Dr. W. W. Keen of Philadelphia: "The Red Cross and the Antivivisectionists". This article sets forth in no uncertain fashion truths which we only wish every thinking man and women in this country and in the United States might learn.

Dr. (Major) Keen is a veteran of the American Civil War and a splendid representative of the medical profession in the United States and a staunch upholder of the Allied Cause. We would ask our lay contemporaries as a special mark of favour to utilize as much as possible of Dr. Keen's article, in order that the fear and dread of many a Canadian father and mother may be allayed.

A Federal Department of Health

A unique opportunity awaits the Government when the forthcoming Session of Parliament is called. A still more splendid occasion for a member of the House to introduce the legislation necessary to initiate the establishment of a Federal Department of Health, awaits that member who has sufficient vision and sufficient force of character to bring the Government to see the true state of affairs.

At least let us go this far before the Session is over. Let the Government appoint a Royal Commission to investigate, take evidence and prepare plans for the establishment of a Federal Department of Health. Legislation to permit of this could then be introduced next year. The Government cannot do less than this and be regarded as having evinced any interest in the fundamental question of the National Health.

